IN THE CLAIMS

1-16. (Cancelled)

Claim 17 has been amended as follows:

17. (Currently Amended) A motion sensor for measuring an activity level of an animate subject, comprising:

a substantially non-deformable fluid-tight housing ~~adapted~~ configured for placement relative to a subject for co-movement with movements of the subject;

a fluid contained in said housing, said fluid comprising at least one type of anisotropic molecules, having an anisotropic property that changes dependent on motion of said fluid imparted to said fluid exclusively by the co-movement of said housing with said movements of said subject; and

electrodes in communication with said anisotropic molecules ~~for detecting~~ that detect a state of said anisotropic property, said electrodes being accessible from an exterior of said housing to provide an output signal representing an activity level of the subject.

18. (Previously Presented) A motion sensor as claimed in claim 17 wherein said housing is comprised of biocompatible material, and is adapted for implantation in the subject.

19. (Previously Presented) A motion sensor as claimed in claim 17 wherein said anisotropic molecules comprise a liquid crystalline polymer.

20. (Previously Presented) A motion sensor as claimed in claim 19 wherein said liquid crystalline polymer is poly (p-phenylene) having a degree of polymerization equal to or greater than 10.

21. (Previously Presented) A motion sensor as claimed in claim 17 wherein said anisotropic molecules comprise an electrically detectable component.

22. (Previously Presented) A motion sensor as claimed in claim 21 wherein said electrically detectable component is covalently coupled to said anisotropic molecules.

23. (Previously Presented) A motion sensor as claimed in claim 21 wherein said electrically detectable component is selected from the group consisting of magnetic nanoparticles, zwitterionic pairs, and charge-separated ion pairs.

24. (Previously Presented) A motion sensor as claimed in claim 21 wherein said electrically detectable component comprises iron oxide nanoparticles.

25. (Previously Presented) A motion sensor as claimed in claim 17 comprising a magnetic field source disposed externally of said housing that generates a magnetic field that interacts with said anisotropic molecules to cause said anisotropic property to be in an initial state, and wherein said electrodes detect deviation of said anisotropic property from said initial state.

26. (Previously Presented) A motion sensor as claimed in claim 25 wherein said anisotropic property is capacitance, and wherein said electrodes comprise a pair of capacitor electrodes with said fluid disposed therebetween, said capacitor electrodes being oriented perpendicularly to an applied direction of said magnetic field.

27. (Previously Presented) A motion sensor as claimed in claim 17 comprising a electrostatic field source disposed externally of said housing that generates a electrostatic field that interacts with said anisotropic molecules to cause said anisotropic property to be in an initial state, and wherein said electrodes detect deviation of said anisotropic property from said initial state.

28. (Previously Presented) A motion sensor as claimed in claim 17 wherein said anisotropic property is capacitance, and wherein said electrodes detect the capacitance of said fluid.

29. (Previously Presented) A motion sensor as claimed in claim 17 wherein said anisotropic property is resistance, and wherein said electrodes detect the resistance of said fluid.

30. (Previously Presented) A motion sensor as claimed in claim 17 wherein said housing contains an element interacting with said fluid that produces shear forces in said fluid that alters said anisotropic property of said molecules.

31. (Previously Presented) An electrically detectable anisotropic fluid comprising a liquid crystalline polymer having molecules covalently bound to an iron-oxide nanoparticle.

Claim 32 has been amended as follows:

32. (Currently Amended) A cardiac stimulator comprising:

a motion sensor ~~for measuring~~ that measures an activity level of an animate subject comprising ~~a motion sensor for measuring an activity level of an animate subject, comprising~~ a substantially non-deformable fluid-tight housing ~~adapted~~ configured for placement relative to a subject for co-movement with movements of the subject, a fluid contained in said

housing, said fluid comprising at least one type of anisotropic molecules, having an anisotropic property that changes dependent on motion of said fluid imparted to said fluid exclusively by the co-movement of said housing with said movements of said subject, and electrodes in communication with said anisotropic molecules ~~for detecting~~ that detect a state of said anisotropic property, said electrodes being accessible from an exterior of said housing to provide an output signal representing an activity level of the subject;

a stimulator housing ~~adapted~~ configured for implantation in the subject;

stimulation circuitry contained in said stimulator housing ~~for generating~~ that generates electrical stimulation therapy signals;

an electrode system ~~adapted~~ configured for implantation in the subject, said electrode system being connected to said stimulation generator and being ~~adapted~~ configured to interact with tissue in the subject to deliver said electrical stimulation therapy; and

a control unit in said stimulator housing connected to said stimulation generator, and being in communication with said motion sensor to receive said output therefrom representing said activity level, said control unit modifying said electrical stimulation therapy dependent on said activity level.

33. (Previously Presented) A cardiac stimulator as claimed in claim 32 wherein said housing of said motion sensor is contained in said stimulator housing.

34. (Previously Presented) A cardiac stimulator as claimed in claim 32 wherein said stimulation generator comprises a pacing pulse generator.